

SEOUENCE LISTING

- (1) GENERAL INFORMATION:
 - (i) APPLICANT:

Dario Neri

Lorenzo Tarli

Francesca Viti

Manfred Birchler

(ii) TITLE OF INVENTION:

SPECIFIC BINDING MOLECULES FOR SCINTIGRAPHY, CONJUGATES CONTAINING THEM AND THERAPEUTIC METHOD OF TREATMENT OF ANGIOGENESIS

- (iii) NUMBER OF SEOUENCES: 21
- (iv) CORRESPONDENCE ADDRESS:
 - (A) ADDRESSEE: PEPPER HAMILTON LLP
 - (B) STREET: 600 Fourteenth Street, N.W.
 - (C) CITY: Washington
 - (D) STATE: D.C.
 - (E) COUNTRY: U.S.A.
 - (F) ZIP: 20005-2004
- (v) COMPUTER READABLE FORM:
 - (A) MEDIUM TYPE: Floppy Disk
 - (B) COMPUTER: IBM PC compatible
 - (C) OPERATING SYSTEM: PC Windows
 - (D) SOFTWARE: WP 8.0
- (vi) CURRENT APPLICATION DATA:
 - (A) APPLICATION NUMBER:
 - (B) FILING DATE: April 28, 1999
 - (C) PRIOR APPLICATION: US 09/075,338
 - (D) PRIOR APPLICATION FILING DATE: May 11, 1998
 - (E) CLASSIFICATION:
- (viii) ATTORNEY/AGENT INFORMATION
 - (A) NAME: Pepper Hamilton LLP
 - (B) REGISTRATION NUMBER: 021269
 - (C) REFERENCE/DOCKET NUMBER: 113000.301
- (ix) TELECOMMUNICATION INFORMATION:
 - (A) TELEPHONE: (202) 220-1200
 - (B) TELEFAX: (202) 220-1665
- (2) INFORMATION FOR SEQ ID NO:1:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 24
 - (B) TYPE: DNA
 - (C) ORGANISM: ARTIFICIAL SEQUENCE
 - (ii) FEATURE:
 - (A) NAME/KEY:
 - (B) LOCATION:
 - (C) OTHER INFORMATION:

Description of Artificial Sequence: PCR primer: LMB1bis

- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:
- gcggcccagc cggccatggc cgag
- (2) INFORMATION FOR SEQ ID NO:2:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 54
 - (B) TYPE: DNA
 - (C) ORGANISM: ARTIFICIAL SEQUENCE

24

(ii) FEATURE:
(A) NAME/KEY:
(B) LOCATION:
(C) OTHER INFORMATION:
Description of Artificial Sequence: PCR primer: DP47CDR1for
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2:
gagectggeg gacccagete atmnnmnnmn ngetaaaggt gaatecagag getg 54
(2) INFORMATION FOR SEQ ID NO:3:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 23
(B) TYPE: DNA
(C) ORGANISM: ARTIFICIAL SEQUENCE
(ii) FEATURE:
(A) NAME/KEY:
(B) LOCATION:
(C) OTHER INFORMATION:
Description of Artificial Sequence: PCR primer: DP47CDR1back
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3:
atgagetggg teegeeagge tee 23
(2) INFORMATION FOR SEQ ID NO:4:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 60
(B) TYPE: DNA
(C) ORGANISM: ARTIFICIAL SEQUENCE
(ii) FEATURE:
(A) NAME/KEY:
(B) LOCATION:
(C) OTHER INFORMATION:
Description of Artificial Sequence: PCR primer: DP47CDR2for
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:4:
gtctgcgtag tatgtggtac cmnnactacc mnnaatmnnt gagacccact ccagcccctt 60
(2) INFORMATION FOR SEQ ID NO:5:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 24
(B) TYPE: DNA
(C) ORGANISM: ARTIFICIAL SEQUENCE
(ii) FEATURE:
(A) NAME/KEY:
(B) LOCATION:
(C) OTHER INFORMATION:
Description of Artificial Sequence: PCR primer: DP47CDR2back
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:5:
acatactacg cagactccgt gaag 24
(2) INFORMATION FOR SEQ ID NO:6:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 53
(B) TYPE: DNA
(C) ORGANISM: ARTIFICIAL SEQUENCE
(ii) FEATURE:
(A) NAME/KEY:
(B) LOCATION:
(B) LOCATION: (C) OTHER INFORMATION:

(xi) SE	QUENCE DESCRIPTION: SEQ ID NO:6:	
tcattctcga cti	tgcggccg ctttgatttc caccttggtc ccttggccga acg	53
(2) INFORMATION	ON FOR SEQ ID NO:7:	
(i) SEQU	JENCE CHARACTERISTICS:	
(1	A) LENGTH: 47	
(1	B) TYPE: DNA	
•	C) ORGANISM: ARTIFICIAL SEQUENCE	
(ii) FE		
	A) NAME/KEY:	
	B) LOCATION:	
	C) OTHER INFORMATION:	
	f Artificial Sequence: PCR primer: DPKCDR1for	
	QUENCE DESCRIPTION: SEQ ID NO:7:	
		4 77
	accagget aamnngetge tgetaacact etgaetg	47
	ON FOR SEQ ID NO:8:	
	JENCE CHARACTERISTICS:	
•	A) LENGTH: 23	
· ·	B) TYPE: DNA	
((C) ORGANISM: ARTIFICIAL SEQUENCE	
(ii) FE	ATURE:	
(1	A) NAME/KEY:	
(I	B) LOCATION:	
((C) OTHER INFORMATION:	
Description of	F Artificial Sequence: PCR primer: DPKCDR1back	
_	QUENCE DESCRIPTION: SEQ ID NO:8:	
ttagcctggt acc		23
	ON FOR SEQ ID NO:9:	
	JENCE CHARACTERISTICS:	
· · · · · · ·	A) LENGTH: 46	
•		
•	B) TYPE: DNA	
	C) ORGANISM: ARTIFICIAL SEQUENCE	
(ii) FEA		
	A) NAME/KEY:	
	B) LOCATION:	
	C) OTHER INFORMATION:	
-	Artificial Sequence: PCR primer: DPKCDR2for	
(xi) SE(QUENCE DESCRIPTION: SEQ ID NO:9:	
	gctggatg cmnnatagat gaggagcctg ggagcc	46
(2) INFORMATION	ON FOR SEQ ID NO:10:	
(i) SEQU	JENCE CHARACTERISTICS:	
(1	A) LENGTH: 21	
(I	B) TYPE: DNA	
((C) ORGANISM: ARTIFICIAL SEQUENCE	
(ii) FEA	ATURE:	
(]	A) NAME/KEY:	
	B) LOCATION:	
	C) OTHER INFORMATION:	
	Artificial Sequence: PCR primer: DPKCDR2back	
	QUENCE DESCRIPTION: SEQ ID NO:10:	
gcatccagca ggg	·-	21
	ON FOR SEQ ID NO:11:	21
	JENCE CHARACTERISTICS:	
(<i>F</i>	A) LENGTH: 45	

(C) ORGANISM: ARTIFICIAL SEQUENCE	
(ii) FEATURE:	
(A) NAME/KEY:	
(B) LOCATION:	
(C) OTHER INFORMATION:	
Description of Artificial Sequence: PCR primer: DP47baNco	
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:11:	
gcggcccagc atgccatggc cgaggtgcag ctgttggagt ctggg	45
(2) INFORMATION FOR SEQ ID NO:12:	
(i) SEQUENCE CHARACTERISTICS:	
(A) LENGTH: 55	
(B) TYPE: DNA	
(C) ORGANISM: ARTIFICIAL SEQUENCE	
(ii) FEATURE:	
(A) NAME/KEY:	
(B) LOCATION:	
(C) OTHER INFORMATION:	
Description of Artificial Sequence: PCR primer: CDR3for	
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:12:	
ggttccctgg ccccagtagt caaamnnmnn mnnmnntttc gcacagtaat atacg	55
(2) INFORMATION FOR SEQ ID NO:13:	
(i) SEQUENCE CHARACTERISTICS:	
(A) LENGTH: 24	
(B) TYPE: DNA	
(C) ORGANISM: ARTIFICIAL SEQUENCE	
(ii) FEATURE:	
(A) NAME/KEY:	
(B) LOCATION:	
(C) OTHER INFORMATION:	
Description of Artificial Sequence: PCR primer: VHpullth	
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:13:	
gcggcccagc atgccatggc cgag	24
(2) INFORMATION FOR SEQ ID NO:14:	
(i) SEQUENCE CHARACTERISTICS:	
(A) LENGTH: 66	
(B) TYPE: DNA	
(C) ORGANISM: ARTIFICIAL SEQUENCE	
(ii) FEATURE:	
(A) NAME/KEY:	
(B) LOCATION:	
(C) OTHER INFORMATION:	
Description of Artificial Sequence: PCR primer: Jassm	
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:14:	
cccgctaccg ccactggacc catcgccact cgagacggtg accagggttc cctggcccca	60
gtagtc	66
(2) INFORMATION FOR SEQ ID NO:15:	
(i) SEQUENCE CHARACTERISTICS:	
(A) LENGTH: 62	
(B) TYPE: DNA	
(C) ORGANISM: ARTIFICIAL SEQUENCE	
(ii) FEATURE:	
(A) NAME/KEY:	
(A) MARIE/REI:	

(B) TYPE: DNA

(B) LOCATION: (C) OTHER INFORMATION: Description of Artificial Sequence: PCR primer: DPK22assm (xi) SEQUENCE DESCRIPTION: SEQ ID NO:15:	
gatgggtcca gtggcggtag cgggggcgcg tcgactggcg aaattgtgtt gacgcagtct	60
(2) INFORMATION FOR SEQ ID NO:16:	62
(i) SEQUENCE CHARACTERISTICS:	
(A) LENGTH: 63	
(B) TYPE: DNA	
(C) ORGANISM: ARTIFICIAL SEQUENCE	
(ii) FEATURE:	
(A) NAME/KEY:	
(B) LOCATION:	
(C) OTHER INFORMATION:	
Description of Artificial Sequence: PCR primer: DPK3for	
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:16:	
caccttggtc ccttggccga acgtmnncgg mnnmnnaccm nnctgctgac agtaatacac	60
tgc	63
(2) INFORMATION FOR SEQ ID NO:17:	
(i) SEQUENCE CHARACTERISTICS:	
(A) LENGTH: 56	
(B) TYPE: DNA	
(C) ORGANISM: ARTIFICIAL SEQUENCE	
(ii) FEATURE:	
(A) NAME/KEY:	
(B) LOCATION:	
(C) OTHER INFORMATION:	
Description of Artificial Sequence: PCR primer: Jfornot (xi) SEQUENCE DESCRIPTION: SEQ ID NO:17:	
gagtcattct cgacttgcgg ccgctttgat ttccaccttg gtcccttggc cgaacg	56
(2) INFORMATION FOR SEQ ID NO:18:	30
(i) SEQUENCE CHARACTERISTICS:	
(A) LENGTH: 24	
(B) TYPE: DNA	
(C) ORGANISM: ARTIFICIAL SEQUENCE	
(ii) FEATURE:	
(A) NAME/KEY:	
(B) LOCATION:	
(C) OTHER INFORMATION:	
Description of Artificial Sequence: PCR primer: VLpullth (xi) SEQUENCE DESCRIPTION: SEQ ID NO:18:	
gatgggtcca gtggcggtag cggg	24
(2) INFORMATION FOR SEQ ID NO:19:	
(i) SEQUENCE CHARACTERISTICS:	
(A) LENGTH: 116	
(B) TYPE: PRT	
(C) ORGANISM:	
VH antibody specific for ED-B domain of fibronectin	
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:19:	
Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly	
1 5 10 15	
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Phe	

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20 25 30 Ser Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val 40 Ser Ser Ile Ser Gly Ser Ser Gly Thr Thr Tyr Tyr Ala Asp Ser Val 55 60 Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys 90 Ala Lys Pro Phe Pro Tyr Phe Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser 115 (2) INFORMATION FOR SEQ ID NO:20: (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 14 (B) TYPE: PRT (C) ORGANISM: ANTIBODY LINKER (xi) SEQUENCE DESCRIPTION: SEQ ID NO:20: Gly Asp Gly Ser Ser Gly Gly Ser Gly Gly Ala Ser Thr Gly 5 10 (2) INFORMATION FOR SEQ ID NO:21: (i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 108
- (B) TYPE: PRT
- (C) ORGANISM:

VL Antibody Specific for ED-B domain of Fibronectin

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:

Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
1 5 10 15

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Ser 20 25 30

Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu 35 40 45

Ile Tyr Tyr Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser 50 55 60

Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu 65 70 75 80

Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Thr Gly Arg Ile Pro 85 90 95

Pro Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105